

Substitute Form PTO-1449
(Modified)U.S. Department of Commerce
Patent and Trademark OfficeAttorney's Docket No.
09010-029009Application No.
10/034,985**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

Applicant
Jay M. ShortFiling Date
December 21, 2001Group Art Unit
1651/652**U.S. Patent Documents**

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
DN	AA	5,366,736	11/22/1994	Edwards, Jr.			
	AB	5,436,156	7/25/1995	Van Gorcom et al.			
	AC	5,593,963	1/14/1997	Van Ooijen et al.			
	AD	5,830,696	11/3/1998	Short			
	AE	5,939,303	8/17/1999	Cheng, et al.			
DN	AF	6,190,897 B1	2/20/2001	Kretz			
	AG						

RECEIVED

SEP 23 2002

TECH CENTER 1600/2900

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
DN	AH	WO 99/08539	2/25/1999	Europe EP WIPO				
DN	AI	EP 0 897 985 A2	2/24/1999	Europe EP				
DN	AJ	0 282 042B1	6/8/1994	Europe EPO			Abstract only	
	AK							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
DN	AL	Stephen F. Altschul, Warren Gish, Webb Miller, Eugene W. Myers and David J. Lipman, "Basic Local Alignment Search Tool", 1990, Academic Press Limited, J. Mol. Bio. Vol. 215, pp. 403-410
	AM	Henrik Brinch-Pedersen, Annette Olesen, Soren K. Rasmussen & Preben B. Holm, "Generation of Transgenic Wheat (<i>Triticum aestivum</i> L.) for Constitutive Accumulation of an <i>Aspergillus</i> Phytase", 2000, Molecular Breeding, pp. 195-206
	AN	Janie Dassa, Christian Marck, and Paul L. Boquet, "The Complete Nucleotide Sequence of the <i>Escherichia coli</i> Gene <i>appA</i> Reveals Significant Homology between pH 2.5 Acid Phosphatase and Glucose-1-Phosphatase", September, 1990, Journal of Bacteriology, Vol 172, No. 9, pp. 5497-5500
	AO	J. Dvorakova, "Phytase: Sources, Preparation and Exploitation", 1998, Folia Microbiol, Vol. 43(4), pp. 323-338
	AP	Lori Giver, Anne Gershenson, Per-Ola Freskgard, and Frances H. Arnold, "Directed Evolution of a Thermostable Esterase", October, 1998, National Academy of Sciences, Vol. 95, pp. 12809-12813
	AQ	R. Greiner, U. Konietzny, and Kl.-D. Jany, "Purification and Characterization of Two Phytases from <i>Escherichia coli</i> ", May 15, 1993, Archives of Biochemistry and Biophysics, Vol. 303, No. 1, pp. 107-113
DN	AR	M. Lehmann, L. Pasamontes, s. F. Lassen, M. Wyss, "The Consensus Concept for Thermostability Engineering of Proteins", 2000, Biochimica et Biophysica Acta, Vol. 1543, pp. 408-415

Examiner Signature

Date Considered

5/6/05

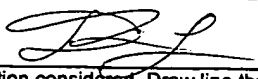
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449 (Modified)	U.S. Department of Commerce Patent and Trademark Office	Attorney's Docket No. 09010-029009	Application No. 10/034,985
Information Disclosure Statement by Applicant (Use several sheets if necessary)		Applicant Jay M. Short	
		Filing Date December 21, 2001	Group Art Unit 1651 1652

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
DR	AS	Lutz Jermutus, Michel Tessier, Luis Pasamontes, Adolphus P.G.M. van Loon, and Martin Lehmann, "Structure-based Chimeric Enzymes as an Alternative to Directed Enzyme Evolution: Phytase as a Test Case", 2001, Journal of Biotechnology Vol. 85, pp. 15-24
	AT	William R. Pearson and David J. Lipman, "Improved Tools for Biological Sequence Comparison", April 1988, National Academy of Sciences, Vol. 85, pp. 2444-2448
	AU	Jan Pen, Theo C. Verwoerd, Peter A. vanParidon, Rob F. Beudeker, Peter J.M. van den Elzen, Kees Geerse, Jan D. van der Klis, Hans A. J. Versteegh, Albert J.J. van Ooyen and Andre' Hoekema, "Phytase-containing Transgenic Seeds as a Novel Feed Additive for Improved Phosphorus Utilization", July, 1993, Bio/Technology Vol. 11, pp. 79-82
	AV	Eric Rodriguez, Yanming Han, and Xin Gen Lei, "Cloning, Sequencing, and Expression of an <i>Escherichia coli</i> Acid Phosphatase/Phytase Gene (appA2) Isolated from Pig Colon", 1999, Biochemical and Biophysical Research Communications, Vol. 257, pp. 117-123
	AW	J. Rozas and R. Rozas, "DnaSP, DNA Sequence Polymorphism: An Interactive Program for Estimating Population Genetics Parameters from DNA Sequence Data", 1995, Cabios, Vol. 11 No. 6, pp. 61-625
	AX	Andrea Tomschy, Michel Tessier, Markus Wyss, Roland Brugger, Clemens Broger, Line Schnoebelen, Adolphus P.G.M. van Loon, and Luis Pasamontes, "Optimization of the Catalytic Properties of <i>Aspergillus-fumigatus</i> Phytase Based on the Three-dimensional Structure", 2000, Protein Science, pp. 1304-1311
	AY	T. C. Verwoerd, A. Hoekema, P. A. van Paridon, A.J.J. van Ooyen, & J. Pen, "Phytase-enriched Transgenic Seeds as a Novel Feed Additive", 1993, Med. Fac. Landbouww. Univ. Gent. No. 58/4a, pp. 1719-1721
	AZ	Costantino Vetriani, Dennis L. Maeder, Nicola tolliday, Kitty S.-P. Yip, Timothy J. Stillman, K. Linda Britton, David W. Rice, Horst H. Klump, and Frank T. Robb, "Protein Thermostability Above 100°C: A Key Role for Ionic Interactions", October, 1998, National Academy of Sciences, Vol. 95, pp. 12300-12305
	AAA	Gunnar von Heijne, A New Method for Predicting Signal Sequence Cleavage Sites", 1986, Research Group for Theoretical Biophysics, pp. 4683-4690
DR	ABB	Markus Wyss, Roland Brugger, Alexandra Kronenberger, Roland Remy, Rachel Fimbel, Gottfried Oesterhelt, Martin Lehmann, and Adolphus P.G.M. van Loon, February, 1999, Applied and Environmental Microbiology, Vol. 65, No. 2, pp. 367-373
	ACC	Database accession No. AR130956, May 2001, GenBank
	ADD	Database accession No. AAX26540 missing Database, Date
	AEE	Database accession No. P07102, GenBank, April 1993

RECEIVED
 SEP 23 2002
 TECH CENTER 1600/2900

Examiner Signature 	Date Considered 5/6/05
EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.	

Substitute Form PTO-1449

U.S. Department of Commerce
Patent and Trademark Office

Attorney's Docket No.

09010-029009

Application No.

10/034,985

**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

Applicant

Jay M. Short

Filing Date

December 21, 2001

Group Art Unit

1651/652

U.S. Patent Documents

Examiner Initial	Desig. ID	Patent Number	Issue Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

RECEIVED

OCT 18 2002

TECH CENTER 1600/2900

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AQ	Database accession No. A02249
<i>DR</i>	AR	GenBank Database accession No. A02249, April 1996
	AS	
	AT	

Examiner Signature

DR

Date Considered

5/6/05

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449
(Modified)U.S. Department of Commerce
Patent and Trademark OfficeAttorney's Docket No.
09010-029009Application No.
10-034,985**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

Applicant
Jay M. ShortFiling Date
December 21, 2001Group Art Unit
1651 1652

(37, CFR § 1.98(b))

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

RECEIVED

FEB 24 2003

TECH CENTER 1600/2900

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
<i>DR</i>	AQ	Golovan et al., Characterization and overproduction of the <i>Escherichia coli</i> <i>appA</i> encoded bifunctional enzyme that exhibits both phytase and acid phosphatase activities", <u>Canadian Journal of Microbiology</u> , Vol. 46, No. 1, pp. 59-71, January, 2000
	AR	
	AS	
	AT	

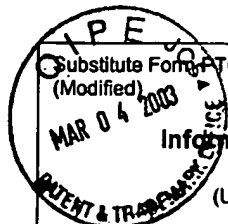
Examiner Signature

DR

Date Considered

5/6/05

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449
(Modified)U.S. Department of Commerce
Patent and Trademark OfficeAttorney's Docket No.
09010-029009Application No.
10/034,985**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

(37 CFR §1.98(b))

Applicant
Jay M. ShortFiling Date
December 21, 2001Group Art Unit
1651 / 652**U.S. Patent Documents**

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
<i>on</i>	AA	5,284,933	Feb 8, 1994	Döbeli et al.			
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

RECEIVED
MAR 06 2003
TECH CENTER 1600/2900

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AL							
	AM							
	AN							
	AO							
	AP							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
	AQ	
	AR	
	AS	
	AT	

Examiner Signature

Date Considered

5/6/05

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Substitute Form PTO-1449

U.S. Department of Commerce
Patent and Trademark Office

Attorney's Docket No.

09010-029008

Application No.

10/034,985

**Information Disclosure Statement
by Applicant**

(Use several sheets if necessary)

Applicant

Short

Filing Date

December 21, 2001

Group Art Unit

1651/1652

U.S. Patent Documents

Examiner Initial	Desig. ID	Document Number	Publication Date	Patentee	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						

RECEIVED

JUN 04 2003

TECH CENTER 1600/2900

Foreign Patent Documents or Published Foreign Patent Applications

Examiner Initial	Desig. ID	Document Number	Publication Date	Country or Patent Office	Class	Subclass	Translation	
							Yes	No
	AI							
	AJ							
	AK							
	AL							
	AM							

Other Documents (include Author, Title, Date, and Place of Publication)

Examiner Initial	Desig. ID	Document
DN	AN	Bork, et al., "Powers and Pitfalls in Sequence Analysis: The 70% Hurdle", <u>Genome Research</u> , pp. 398-400, Vol. 10, 2000
	AO	Broun, et al., "Catalytic Plasticity of Fatty Acid Modification Enzymes Underlying Chemical Diversity of Plant Lipids", <u>Science</u> , Vol. 282, pp. 1315-1317, 13 November 1998
	AP	Van de Loo, et al., "An oleate 12-hydroxylase from <i>Ricinus communis</i> L. is a fatty acyl desaturase homolog", <u>Proc. Natl. Acad. Sci.</u> , Vol. 2, pp. 6743-6747, 1995
DN	AQ	Seffernick, et al., "Melamine Deaminase and Atrazine Chlorohydrolase: 98 percent Identical but Functionally Different", <u>Journal of Bacteriology</u> , Vol. 183, No. 8, pp. 2405-1410, April, 2001
	AR	
	AS	

Examiner Signature

Date Considered

5/6/05

EXAMINER: Initials citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449

Docket Number 564462001811

Application Number 10/034,985

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

Applicant

Jay SHORT

Filing Date December 21, 2001

Group Art Unit 1651 / 1652

Mailing Date February 13, 2004

U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate
DN	1.	11/1998	5,830,732	Mochizuki et al.	435	195	

FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO

OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

Examiner Initials	Ref. No.	Title
DN	2.	Greiner et al., Archives of Biochemistry and Biophysics 34(2):201-206 (1997)
DN	3.	Institute of Applied Environmental Economics (TME) of the Netherlands, "Use of Phytase in Pig and Poultry Feed to Reduce Phosphorus Excretion," (1995)

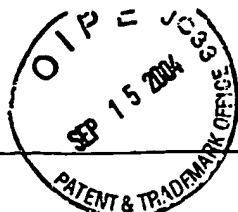
EXAMINER:

JS

DATE CONSIDERED:

5/6/05

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.



Form PTO-1449

INFORMATION DISCLOSURE CITATION
IN AN APPLICATION

Docket Number 564462001811

Application Number 10/034,985

Applicant

Jay M. SHORT

Filing Date December 21, 2001

Group Art Unit 1652

Mailing Date September 13, 2004

U.S. PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

Examiner Initials	Ref. No.	Date	Document No.	Country	Class	Subclass	Translation YES NO
<i>jn</i>	1.	11/2000	WO 00/64247	WIPO			

OTHER DOCUMENTS

(including author, title, Date, Pertinent Pages, Etc.)

Examiner Initials	Ref. No.	Title
<i>jn</i>	2.	Bae et al., Geneseq accession number ABK12514, December 15, 1999
<i>↑</i>	3.	Forsberg et al., Geneseq accession number AAC68296, November 2, 2000
	4.	Forsberg et al., Geneseq accession number AAC68299, November 2, 2000
<i>↑</i>	5.	International Search Report mailed on July 27, 2004, for PCT patent application no. PCT/US02/16482 filed on May 24, 2002, 9 pages
<i>U</i>	6.	Ostanin et al., GenBank accession number L03371 (1992)
<i>jn</i>	7.	Ostanin et al., J Biol Chem 267(32):22830-22836 (1992)

EXAMINER:

BL

DATE CONSIDERED:

5/6/05

EXAMINER: Initial if citation considered, whether or not the citation conforms with MPEP 609. Draw a line through the citation if not in conformance and not considered. Include a copy of this form with next communication to applicant.

**This Page is Inserted by IFW Indexing and Scanning
Operations and is not part of the Official Record**

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☐ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☐ **GRAY SCALE DOCUMENTS**
- ☐ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☒ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.